

CLAIMS

What is claimed is:

- 1 1. A method of generating a knowledge neighborhood comprising:
2 selecting a set of knowledge profiles associated with a root concept;
3 determining a knowledge neighbor for the root concept, the knowledge neighbor
4 being a concept common to the selected knowledge profiles; and
5 deriving an affinity for the knowledge neighbor to represent a relationship between
6 the root concept and the knowledge neighbor.
- 1 2. The method of claim 1 further comprising:
2 using the knowledge neighbor as a new root concept to determine an additional
3 knowledge neighbor.
- 1 3. The method of claim 1, wherein determining a knowledge neighbor comprises:
2 filtering all concepts common to the selected knowledge profiles against a pre-
3 determined confidence level threshold.
- 1 4. The method of claim 1, wherein selecting the set of knowledge profiles comprises:
2 filtering all knowledge profiles associated with the root concept against a pre-
3 determined confidence level threshold.
- 1 5. The method of claim 1 further comprising:
2 obtaining an identity for the root concept.
- 1 6. The method of claim 1, wherein obtaining the identity for the root concept
2 comprises:
3 receiving a user selection of the root concept.
- 1 7. The method of claim 1, wherein the root concept is selected from the group
2 consisting of a knowledge term, a profile, a search criteria, and a document.

1 8. The method of claim 1 further comprising:
2 creating a knowledge map to graphically illustrate the root concept, the knowledge
3 neighbor, and the affinity.

1 9. The method of claim 8 further comprising:
2 using the knowledge map to designate the knowledge neighbor as a new root
3 concept to determine an additional knowledge neighbor.

1 10. The method of claim 8 further comprising:
2 overlaying the knowledge map on an earlier generated knowledge map.

1 11. The method of claim 8 further comprising:
2 graphically illustrating more than one knowledge neighbor as a single knowledge
3 neighbor.

1 12. The method of claim 8, wherein creating the knowledge map comprises:
2 graphically illustrating the knowledge neighbor if it satisfies an affinity threshold.

1 13. The method of claim 8, wherein the knowledge map is a directed graph
2 comprising:
3 a node representing the root concept;
4 a node representing the knowledge neighbor; and
5 an edge representing the affinity, the edge graphically linking the node representing
6 the root concept and the node representing the knowledge neighbor.

1 14. The method of claim 13, wherein the edge is illustrated with a length proportional
2 to the affinity.

1 15. The method of claim 13, wherein the edge is illustrated with a color assigned to the
2 affinity.

1 16. The method of claim 1, wherein deriving the affinity comprises:
2 counting the knowledge profiles associated with the knowledge neighbor; and

calculating the affinity using the count of the knowledge profiles.

17. The method of claim 16, wherein calculating the affinity comprises:
factoring in a confidence level for the knowledge neighbor in each of the counted
knowledge profiles.

18. The method of claim 1, wherein deriving the affinity comprises using a formula

$$\sum_{P=1}^N L(R)_P * L(C)_P$$

to calculate the affinity, wherein N is a count of the knowledge profiles associated with the
knowledge neighbor, R is the root concept, C is the knowledge neighbor, L(R) is a
confidence level for the root concept in a profile P, and L(C) is the confidence level of the
knowledge neighbor in the profile P.

19. A computer-readable medium having computer-executable instructions
comprising:
selecting a set of knowledge profiles associated with a root concept;
determining a knowledge neighbor for the root concept, the knowledge neighbor
being a concept common to the selected knowledge profiles; and
deriving an affinity for the knowledge neighbor to represent a relationship between
the root concept and the knowledge neighbor.

20. The computer-readable medium of claim 19 having further instructions
comprising:
using the knowledge neighbor as a new root concept to determine an additional
knowledge neighbor.

21. The computer-readable medium of claim 19 having further instructions
comprising:
obtaining an identity for the root concept.

1 22. The computer-readable medium of claim 19 having further instructions
2 comprising:
3 creating a knowledge map to graphically illustrate the root concept, the knowledge
4 neighbor, and the affinity.

1 23. The computer-readable medium of claim 22 having further instructions
2 comprising:
3 using the knowledge map to designate the knowledge neighbor as a new root
4 concept to determine an additional knowledge neighbor.

1 24. The computer-readable medium of claim 22 having further instructions
2 comprising:
3 overlaying the knowledge map on an earlier generated knowledge map for the root
4 concept.

1 25. The computer-readable medium of claim 22 having further instructions
2 comprising:
3 graphically illustrating more than one knowledge neighbor as a single knowledge
4 neighbor.

1 26. A computer system comprising:
2 a processing unit;
3 a memory coupled to the processing unit through a bus;
4 a computer-readable medium coupled to the processing unit through the bus; and
5 a knowledge neighborhood generation process executed from the computer-
6 readable medium to cause the processing unit to select a set of knowledge profiles
7 associated with a root concept, determine a knowledge neighbor for the root concept from
8 the selected knowledge profiles, and derive an affinity for the knowledge neighbor.

1 27. The computer system of claim 26, wherein the knowledge neighborhood generation
2 process further causes the processing unit to use the knowledge neighbor as a new root
3 concept to determine an additional knowledge neighbor.

1 28. The computer system of claim 26, wherein the knowledge neighborhood generation
2 process further causes the processing unit to obtain an identity for the root concept.

1 29. The computer system of claim 26 further comprising:
2 a knowledge mapping process executed from the computer-readable medium to
3 cause the processing unit to graphically illustrate the knowledge neighbor and the affinity
4 as a knowledge neighborhood for the root concept.

1 30. The computer system of claim 29, wherein the knowledge mapping process further
2 causes the processing unit to graphically overlay the knowledge neighborhood on an
3 earlier generated knowledge neighborhood for the root concept.

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